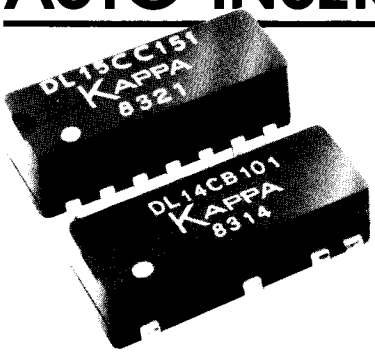
SERIES DL14/DL15 TTL SCHOTTKY (14-PIN) 5-TAP/10-TAP

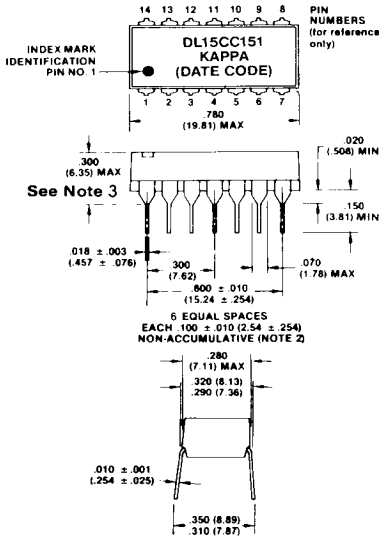
AUTO-INSERTABLE DELAY LINES



FEATURES

- Auto-Insertable 14-pin package
- TTL Schottky interfaced
- 5/10 equally spaced taps
- Risetime: 4 ns max(5) (6)
- Total delays from 25-500 ns

MARKINGS AND DIMENSIONS, in (mm)



Marking and dimension notes:

1. A notch may be substituted for PIN #1 Dot Index.
2. Each terminal is located within ±.010 of its nominal multiple of .100 along this longitudinal dimension relative to terminals 7 and 8.
3. **Also available in .200 in. max mounting height as DL14CA and .165 in. max mounting height as DL14CZ.**

RECOMMENDED OPERATING CONDITIONS		MIN	TYP	MAX	UNIT
V_{CC}	Supply Voltage	4.75	5.00	5.25	V
V_{IH}	High-Level Input Voltage	2.0			V
V_{IL}	Low-Level Input Voltage			0.8	V
I_{IK}	Input Clamp Current			−18	mA
I_{OH}	High-Level Output Current			−1.0	mA
I_{OL}	Low-Level Output Current			20	mA
T_A	Operating Free-Air Temperature	0	+25	+70	°C

DC ELECTRICAL CHARACTERISTICS		TEST CONDITIONS				
V_{OH}	High-Level Output Voltage	V_{CC} = min, V_{IH} = min, I_{OH} = max	2.7	3.4		V
V_{OL}	Low-Level Output Voltage	V_{CC} = min, V_{IL} = max, I_{OL} = max			0.5	V
V_{IK}	Input Clamp Voltage	V_{CC} = min, I_I = I_{IK}			−1.2	V
I_{IH}	High-Level Input Current	V_{CC} = max, V_{IN} = 2.7V			50	μA
		V_{CC} = max, V_{IN} = 5.25V			1.0	mA
I_{IL}	Low-Level Input Current	V_{CC} = max, V_{IN} = 0.5V			−2	mA
I_{OS}	Short Circuit Output Current	V_{CC} = max, V_{OUT} = 0, one output at a time	−40		−100	mA
I_{CCH}	High-Level Supply Current	V_{CC} = max, V_{IN} = OPEN		30/60	45/75	mA
I_{CCL}	Low-Level Supply Current	V_{CC} = max, V_{IN} = 0		65/120	75/150	mA
N_H	Fanout High-Level Output	V_{CC} = max, V_{OH} = 2.7V			20	TTL load
N_L	Fanout Low-Level Output	V_{CC} = max, V_{OL} = 0.5V			10	TTL load

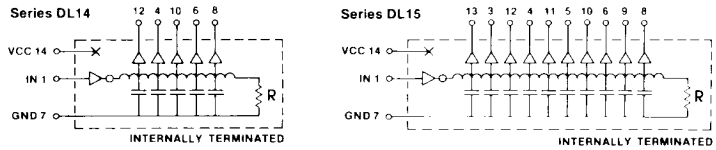
INPUT PULSE TEST CONDITIONS					
E_{IN}	Pulse Voltage	3.1	3.2	3.3	V
T_{RI}	Pulse Rise-Time			2.0	ns
T_W	Pulse Width, of Total Delay	40/20	100		%
d	Duty Cycle		33.3	50	%

PART NUMBER	Total Delay (ns)(1) (2)	Tap Delay (ns)(1) (2)
DL14CB250	**25**	**5**
DL14CB500	50	10
DL14CB750	**75**	**15**
DL14CB101	100	20
DL14CB251	**250**	**50**
DL14CB501	500	100
DL15CC500	**50**	**5**
DL15CC101	100	10
DL15CC151	**150**	**15**
DL15CC201	200	20
DL15CC251	**250**	**25**
DL15CC501	500	50

Notes:

1. Delays measured at 1.5V level on leading edge only.
2. Delay tolerances: ±5% or ±2 ns, whichever is greater, referenced from input and guaranteed only under the following test conditions: V_{CC} = Typ, T_A = Typ, E_{IN} = Typ, T_{RI} = max, T_W = Typ, P_{RR} = 1MHz (or d/tw, whichever is less), R_L 1 megohm and C_L2 pf.
3. Temperature coefficient of delay will vary, depending upon total delay, according to the formula: $T_{PTA} = (100 + (25{,}000/T_{PLH}))$.
4. Delay will vary approximately 4% for every 5% change in supply voltage.
5. Risetime measured from 0.75V to 2.4V level.
6. Measured with no loads on taps.
7. **Other delays also available upon request.**
8. Typical trailing edge delay = leading edge delay within ±15% typ.

FIGURE 1 — SCHEMATIC



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